Kansas Tobacco Quitline Stakeholder Report



Quick Facts:

What is the Kansas Tobacco Quitline?

The Kansas Tobacco Quitline currently provides free empirically supported tobacco cessation coaching to all Kansans, including a phone-based program with integrated Web Coach® access, a Stand Alone Web program, and referral to community resources. The Quitline has been operated by Alere Wellbeing since January 2010.

Who does the Quitline serve?

The Quitline has **served 10,115 Kansans** between January 2010 and May 2013. The Quitline is available to every resident in the State; serves those who want to quit tobacco, those who want to help a loved one quit tobacco, and health care providers; and reaches tobacco users in need who may have limited access to other cessation resources.

22% of adults in Kansas smoke – 21st highest in the nation¹

Is the Quitline an effective program for improving the health of Kansans?

Yes, research has repeatedly shown that quitlines such as the Kansas Tobacco Quitline are a programmatic and cost effective public health service. Tobacco users who receive services from a quitline are 60% more likely to successfully quit compared to those who attempt to quit without assistance.^{2,3,4} The Quitline is administered by the Kansas Department of Health and Environment (KDHE), and is operated and evaluated in line with North American Quitline Consortium (NAQC) best practices for the industry.





ROI: <u>\$9.22 was saved</u> in Kansas in medical expenditures, lost productivity, and other costs <u>for every \$1 spent</u> on the Quitline and tobacco cessation media in FY2011

How does Kansas's Quitline align with national benchmarks?

By 2015, NAQC recommends that quitlines should strive to reach 6% of tobacco users and achieve a 30% program quit rate,⁵ assuming adequate funding. The **Quitline achieved a 31% tobacco quit rate** during FY2011 (the most current evaluation data available). The treatment reach of the Quitline has remained much lower than the 2015 target of 6% (at 0.4% during both FY2011 and FY2012 and 0.5% for FY2013).

How do we ensure continued success of the program?

Kansas currently funds tobacco prevention and control programs at only 9.1% of recommended levels (decreased from 11% in FY2011). It is important to maintain or increase funding levels to continue the program's success.

"Without this program, without your support, I think that I'd still be smoking. So, thank you."

— Kansas Tobacco Quitline Caller

Overview

In this document:

- Tobacco use impacts in Kansas
- Best practices and research evidence for phone-based tobacco cessation
- Description of KSQL services
- Reach of the program to constituents
- Who uses the Quitline services
- Program outcomes and Return On Investment (ROI) findings
- Feedback from Kansans who received services

Tobacco use in Kansas

"Tobacco use is the single most preventable risk factor for death and disease." - U.S. Department of Health and Human Services

- In 2011, 21.9% of adults in Kansas were current smokers, making Kansas's smoking prevalence slightly higher than the national average (21.2%). This translates to 470,000 adult tobacco users in the state.
- Smoking costs Kansas over \$2.5 billion annually, which includes over \$964 million in direct health care expenditures and \$557 million in lost workplace productivity.9
- Kansans who do not smoke are impacted by tobacco use. The Centers for Disease Control and Prevention (CDC) estimates that 40% of nonsmokers are exposed to harmful secondhand smoke, increasing risk for smoking-attributable illnesses. Children and youth have the highest risks of exposure. 10,11
- The American Lung Association's 2013 State of Tobacco Control Report gave Kansas a mixed report card:
 - o Kansas received an A for protecting its citizens from secondhand smoke with statewide legislation for smoke-free worksites, restaurants, bars.
 - o Kansas received a **D** for its cigarette tax of \$0.79, which is below the national average of \$1.49 and is unchanged since 2003.¹²
 - o Kansas received an **F** for funding tobacco prevention and control programs at only 9.1% of the level recommended by the CDC.¹²

Kansas's high smoking prevalence and related costs underscore the importance of smoking cessation programs for improving the health of Kansans.

Prevalence of Tobacco Use by Gender, Race, Age, Income, and Education

	% Use		% Use		% Use
Gender		Race		Age Group	
Male	24.6%	White	21.1%	18-24	24.5%
Female	19.5%	African American	28.2%	25-34	30.4%
Annual Income		Hispanic	22.6%	35-44	23.7%
Less than \$15,000	38.9%	Education		45-54	25.5%
\$15,000 - 24,999	33.2%	Less than H.S.	38.8%	55-64	18.7%
\$25,000 - 34,999	26.4%	H.S. or G.E.D.	28.3%	65+	9.5%
\$35,000 - 49,999	20.9%	Some post-H.S.	21.6%		
\$50,000+	13.2%	College graduate	8.6%		

Quitline Research – What is the evidence base for state quitlines?

"Tobacco use treatment has been referred to as the 'gold standard' of health care cost-effectiveness."

- U.S. DHHS, Clinical Practice Guideline: Treating Tobacco Use and Dependence²

- Quitting smoking reduces a person's risk for numerous chronic health conditions and premature death, with greater benefits the younger a person quits.¹³
 - Quitting smoking by age 50 cuts a person's risk of dying within 15 years in half. 14
- Tobacco quitlines are available in every state in the U.S., as well as in other countries around the world.
- Extensive research and meta-analyses have proven the efficacy and real-world effectiveness of tobacco auitlines.^{2,3,4}

Quitlines:

- ✓ In every state
- ✓ Proven to help tobacco users quit
- ✓ Best outcomes with multiple sessions + NRT
- Removes barriers
- ✓ Cost-effective
- Tobacco users who receive quitline services are 60% more likely to successfully quit compared to tobacco users who attempt to quit without assistance.²
- Tobacco users who receive medications and quitline counseling have a 30% greater chance of quitting compared to using medications alone.²
- State quitlines eliminate barriers that may be present with in-person cessation interventions because they are free to callers, often available evenings and weekends, convenient, may provide services that are not available locally, and reduce disparities in access to care. 15
- Quitlines are cost-effective:16
 - o California recently reported that the state yielded savings of \$134 billion in health care expenditures by spending \$2.4 billion on tobacco control over 10 years. 17

Spotlight:

Assuring Quitline Service Best Practices for Kansans

The Kansas Tobacco Quitline is operated and evaluated in line with North American Quitline Consortium (NAQC) best practices. 18 The Quitline has been operated by Alere Wellbeing, Inc. (AWI) since January 2010.

AWI specializes in behavioral coaching to help people identify health risks and modify their behaviors so they may avoid or manage chronic illness and live longer, healthier lives. Five large federally and state funded randomized clinical trials have demonstrated the effectiveness of AWI's tobacco cessation program. 19,20,21,22,23

Additional vendor qualifications:

- More than 27 years of experience providing phone-based tobacco cessation services.
- Provision of tobacco cessation services to 28 tobacco quitlines (26 states, Washington DC, and Guam) and more than 700 commercial organizations (76 in the Fortune 500).
- Selected by the American Cancer Society to be its operating partner for quitline services.
- Participant in national tobacco control and treatment policy committees and workgroups.
- Quit Coaches® complete more than 200 hours of rigorous training and oversight before speaking independently with participants.

What services does the Kansas Tobacco Quitline provide?

"They [Quit Coaches] were there if I needed to call them, and they called me in support. Their support is excellent. They are very professional, and they understand how difficult it is to quit smoking."

- Kansas Tobacco Quitline Caller

Services are culturally appropriate, available 24 hours per day, and incorporate evidence-based strategies for tobacco dependence treatment as outlined in the USPHS Clinical Practice Guideline, *Treating Tobacco Use and Dependence: 2008 Update.*

- Phone-based tobacco cessation services:
 - Five-call tobacco cessation program
 - initial coaching session with a Quit Coach®
 - 4 additional proactive follow-up calls
 - o Intensive 10-call program for pregnant tobacco users
 - Intensive behavioral support tailored to unique needs during pregnancy and including postpartum contact to prevent relapse
- Web-based tobacco cessation services:
 - Web Coach®
 - interactive, web-based cessation tool designed to complement and enhance phone counseling
 - integrated access with any phone-based Quitline program

Stand Alone Web program

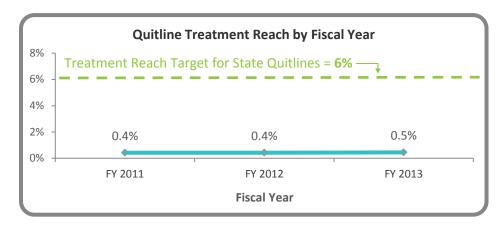
- Online participant application designed to guide smokers and smokeless tobacco users through an evidence-based process of quitting tobacco
- Print educational materials: Quit Guide, materials for special populations
- Referrals to local resources





What is the "Reach" of the Quitline treatment program?

TREATMENT REACH is the % of tobacco users in Kansas who receive empirically supported cessation treatment through the Quitline each year.²⁴



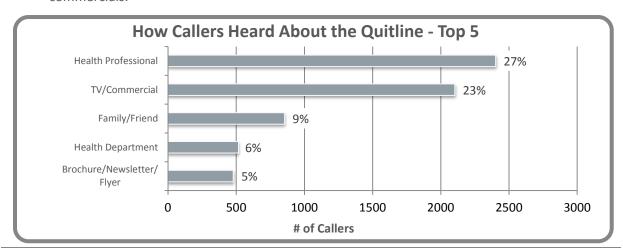
- The Treatment Reach for the Kansas Tobacco Quitline has remained stable since 2010. The Quitline reached 0.4% of tobacco users in Kansas during FY2011 and FY2012 and 0.5% of users in FY2013. ^{25,26,29}
- Approximately 1% of tobacco users are reached by U.S. and Canadian quitlines annually; however, it may be possible to reach 16% of tobacco users each year with appropriate promotion and funding.²⁷ NAQC and the CDC have set targets for state quitlines to reach 6% of tobacco users with treatment each year.^{28,29}

How do callers get connected with treatment?

"...I thank you for your encouragement and I think the support you give will be a key part in recovering my health."

- Kansas Tobacco Quitline Caller

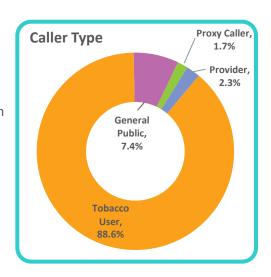
 From January 2010 through May 2013, over one quarter (27%) of callers learned about the Quitline from a health professional. An additional 23% learned about the Quitline from TV commercials.



Who calls the Kansas Tobacco Quitline?

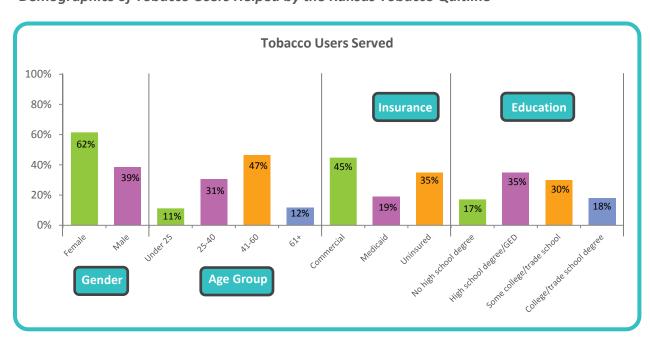
From January 2010 through May 2013, the Kansas Tobacco Quitline served **10,115 Kansans**.

- Primarily tobacco users (89%), but also the general public, friends/family members of tobacco users, and healthcare providers.
- Services are provided in English (98.7%) and Spanish (1.3%); translation services are provided for callers who speak other languages.
 - o 6% were of Hispanic ethnicity.
- Most seek help to quit cigarettes (91%), but also smokeless tobacco (4%), cigars (4%), pipes (0.5%), and other tobacco products (0.7%).



- The Quitline reaches tobacco users in need who may have limited access to other cessation resources:
 - o 61% of tobacco users reported a household income of less than \$20,000 per year.
 - 52% did not have education beyond high school.
 - o 35% were uninsured and 19% were insured by Medicaid

Demographics of Tobacco Users Helped by the Kansas Tobacco Quitline



Spotlight: Medicaid Insurance and Tobacco Use

- Since 2010, 19% of Quitline callers have been insured through Medicaid.
- According to the CDC, smoking is twice as common among Medicaid enrollees compared to the general adult population, and medical costs related to smoking make up 11% of Medicaid expenditures.
- Improving tobacco cessation efforts among Medicaid recipients could have a large impact on this vulnerable population.

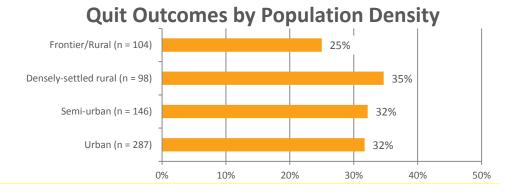


"You helped me come up with a plan and helped educate me on the health benefits [of quitting]."

- Medicaid-Insured Kansas Quitline Caller

Spotlight: Population Density and Tobacco Use

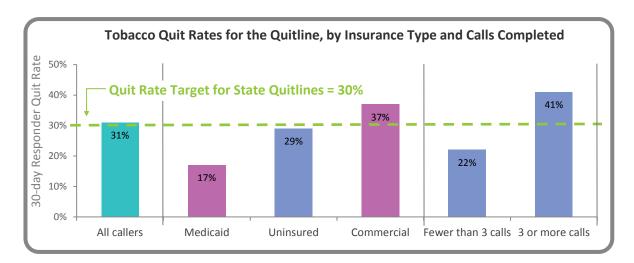
- According to the American Lung Association,³¹ people living in rural communities:
 - o are more likely to use tobacco
 - have high rates of smokeless tobacco use
 - o are more likely to be exposed to secondhand smoke
 - o are less likely to have access to cessation programs
- While FY2011 callers living in Frontier or Rural counties (fewer than 20 people per square mile) were slightly less likely to be quit for 30+ days at follow-up, the difference was <u>not</u> statistically significant.



How do we know the Kansas Tobacco Quitline works?

What are the **Program Outcomes**? In FY2011...

3 in 10 successfully quit, and continued tobacco users made important reductions in their use and dependence, increasing their likelihood of future success.



31%

were quit at the 7-month follow-up evaluation survey (30-day responder quit rate)

- o 84% made one or more quit attempts after enrolling in the program.
- Callers who were more engaged with the program (i.e., completed 3 or more coaching calls) were significantly more likely to quit (41% vs. 22%).



were satisfied with the program



reported that their expectations of the Quitline were met

- Although the goal is tobacco abstinence, important health improvements were made among continued tobacco users:
 - o **Reduction in use**: 60% of continued smokers reduced the number of cigarettes they smoked per day, on average, **by a half pack** (10 cigarettes).
 - o **Reduction in dependence level**: 48% decrease in the number of continued tobacco users who reported smoking their first cigarette within 5 minutes after waking.
 - Reduction in number of daily smokers: 16% decrease in smokers who reported smoking every day.
 - o Intent to Quit: 64% intended to make another quit attempt within 6 months.

"If it wasn't for this program I don't think I would ever quit. I am so glad I found out about it."

— Kansas Tobacco Quitline Caller

Best practices in quitline evaluation and measurement of outcomes

To encourage quality standards and comparability of findings across state quitlines, the North American Quitline Consortium (NAQC) has established a series of recommendations and best practices for the **evaluation of tobacco cessation quitlines**. These standards include:



- Ongoing evaluation to maintain accountability and demonstrate effectiveness.³²
- Assessment of outcomes 7 months following callers' enrollment in services, utilizing NAQC methodology and measurement guidelines.³³
- Reporting of 30-day point prevalence tobacco quit rates (the proportion of callers who have been tobacco-free for 30 or more days at the time of the 7-month follow-up survey) in conjunction with survey response rates.³⁴

The evaluation findings presented on the previous page come from the Quitline's CDC-CPPW FY2011 evaluation and represent 7-month outcome data from a census sample of July 2010 through June 2011 registrants who received empirically supported treatment (i.e., completed one or more coaching calls) through the program (survey response rate of 41.1%).

Is the program cost-effective?

\$9.22 saved in Kansas in medical expenditures, lost productivity, and other costs for every \$1 spent on the Quitline and tobacco cessation media in FY2011

Return on Investment (ROI) – Fiscal Year 2011				
Quit Rate	31.1%			
• 30-day respondent quit rate for July 2010 – June 2011 registrants	92.270			
# Quit	667			
• 31.1% x 2,145 distinct tobacco users received intervention	007			
Total \$ Saved 34,35,36,37,38,39				
• Medical expenses: \$2,404 x 667 = \$1.60M				
• Lost productivity: \$1,127 x 667 = \$752,000	\$3.95M			
• Worker's compensation: \$2,013 x 667 = \$1.34M				
• Secondhand smoke: \$384 x 667 = \$256,000				
Total \$ Spent				
KSQL Operating Costs: \$338,506	\$428,354			
Statewide anti-tobacco, cessation, and secondhand smoke media	7-20,33-			
(tagged with Quitline number): \$89,848 ⁴⁰				
Return On Investment	\$9.22			
Ratio of Total \$ Saved / Total \$ Spent	75.22			

In the Words of Kansas Tobacco Quitline Callers...

"Your group has been so helpful to me. You guys offer a safety net, and I really needed it to quit. Those first couple of weeks were tough, but you guys helped me stick it out."

"The best part about the Quitline was there was a time when I was doing something that normally was a trigger, expressed what it was and the counselor mentioned about taking a walk; they remembered for me and that was great."

"I think the Quitline is a very wise investment of tax payer dollars for the health of citizens. It's a terrific program and I'd be glad to donate to it in the future. It's an excellent tool to help productivity in the state."

"They [Quit Coaches] were just real concerned and helpful. They just seemed like they were real adamant about wanting to get me to guit and I appreciated that. It was inspiring."

"I've been through a lot of programs. I've gone to the health department and I've tried different things, but this program really helped me. The longest time I've ever been quit is with you guys. Thank you guys so much; this program is really helpful."

"Everybody there [at the Quitline] was very helpful, very informative. They knew exactly what they were talking about, so I was going to an expert, not just anyone off the street....Any time I needed assistance they were there...just being informative and knowledgeable and being understanding and caring."

"The counselors provided me with exactly what I needed, and the counseling...with the problems that I was having. They tailored to me."

"I called several times and they [Quit Coaches] were able to help me create replacement behaviors and help me look at the emotional, physical, and psychological aspects of smoking."

"They [Quit Coaches] were very successful in helping me quit. They offer you some confidence in quitting, and if you have any problems they are there to help you."



References and Notes

- ¹ Centers for Disease Control and Prevention (2011). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Available at: http://apps.nccd.cdc.gov/BRFSS/list.asp?cat=TU&yr=2011&qkey=8161&state=All
- ² Fiore, M. C. (2008). Treating tobacco use and dependence: 2008 update. Rockville, MD, U.S. Dept. of Health and Human Services, Public Health Service.
- ³ Stead, L. F., Perera, R., & Lancaster T. (2006). Telephone counseling for smoking cessation. *Cochrane Database of Systemic* Reviews, 3:CD002850.
- ⁴ Lichtenstein, E., Glasgow, R. E., Lando, H. A., Ossip-Klein, D. J., & Boles, S. M. (1996). Telephone Counseling for Smoking Cessation: Rationales and Meta-Analytic Review of Evidence. Health Education Research, 11(2):243-57.
- ⁵ NAQC. Mission and Goals. Available at: http://www.naquitline.org/?page=MissionGoals
- ⁶ American Lung Association. State of Tobacco Control 2012. Available at: http://www.stateoftobaccocontrol.org/sotc-2013report.pdf
- ⁷ U.S. Department of Health and Human Services. *Prevention Makes Common "Cents."* Washington: U.S. Department of Health and Human Services, September 2003. Available at: http://aspe.hhs.gov/health/prevention/
- ⁸ American Lung Association. State of Tobacco Control 2012. Available at: http://www.stateoftobaccocontrol.org/sotc-2013report.pdf
- ⁹ Rumberger, J. S., Hollenbeak, C. S., & Kline, D. (2010). Potential Costs and Benefits of Smoking Cessation for Kansas. Pennsylvania State University. Available at: http://www.lung.org/stop-smoking/tobacco-control-advocacy/reportsresources/cessation-economic-benefits/reports/KS.pdf
- ¹⁰ Centers for Disease Control and Prevention. (2010). Vital signs: Nonsmokers' exposure to secondhand smoke United States 1999-2008. MMWR: Morbidity and Mortality Weekly Report, 59(35), 1141-1146.
- ¹¹ Centers for Disease Control and Prevention. (2008). Smoking-attributable mortality, years of potential life lost, and productivity losses - United States, 2000-2004. MMWR: Morbidity and Mortality Weekly Report, 57(45), 1226-1228.
- ¹² American Lung Association. State of Tobacco Control 2013. Available at: http://www.stateoftobaccocontrol.org/sotc-2013report.pdf
- ¹³ Centers for Disease Control and Prevention. *Smoking and Tobacco Use: Smoking Cessation.* Available at: http://www.cdc.gov/tobacco/data statistics/fact sheets/cessation/quitting/index.htm
- ¹⁴ U.S. Department of Health and Human Services. (1990) The Health Benefits of Smoking Cessation: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. DHHS Publication No. (CDC)90-8416.
- ¹⁵ Anderson, C. M. & S. H. Zhu (2007). Tobacco quitlines: looking back and looking ahead. *Tobacco Control*, 16 (Suppl 1), i81-86.
- ¹⁶ Kahende, J. W., Loomis, B. R., Adhikari, B., & Marshall, L. (2008). A review of economic evaluations of tobacco control programs. International Journal of Environmental Research and Public Health, 6, 51-68; doi: 10.3390/ijerph6010051.
- ¹⁷ Lightwood, J., & Glantz, S. A. (2013). The effect of the California Tobacco Control Program on smoking prevalence, cigarette consumption, and healthcare costs: 1989-2008: PLoS ONE 8(2): e47145. doi: 10.1371/journal.pone.0047145.
- ¹⁸ NAQC. (2010), Call Center Metrics: Best Practices in Performance Measurement and Management to Maximize Quitline Efficiency and Quality. Quality Improvement Initiative (Reynolds, P). Phoenix, AZ.
- ¹⁹ Orleans, C. T., Schoenbach, V. J., Wagner, E., et al. (1991). Self-help quit smoking interventions: Effects of self-help materials, social support instructions, and telephone counseling. Journal of Consulting and Clinical Psychology, 59(3):439-448.
- ²⁰ Curry, S. J., Grothaus, L. C., McAfee, T., & Pabiniak, C. (1998). Use and cost effectiveness of smoking-cessation services under four insurance plans in a health maintenance organization. New England Journal of Medicine, 339(10):673-679.
- ²¹Swan, G. E., McAfee, T., Curry, S. J., et al. (2003). Effectiveness of bupropion sustained release for smoking cessation in a health care setting: a randomized trial. Archives of Internal Medicine, 163(19):2337-2344.
- ²² Hollis, J. F., McAfee, T., Fellows, J. L., Zbikowski, S. M., & Stark, M. K. R. (2007). The effectiveness and cost effectiveness of telephone counseling and the nicotine patch in a state tobacco quitline. Tobacco Control, 16 (Suppl 1), i53-59.
- ²³ McAfee, T. A., Bush, T., Deprey, T. M., Mahoney, L. D., Zbikowski, S. M., Fellows, J. L., & McClure, J. B. (2008). Nicotine patches and uninsured quitline callers. A randomized trial of two versus eight weeks. American Journal of Preventive Medicine, 35(2):103-10.

- ²⁴ Treatment reach was calculated by dividing the number of adult cigarette users receiving KSQL treatment by the number of adult cigarette users in Kansas. Adult cigarette users receiving KSQL treatment included all participants 18 years or older who were self-reported cigarette users and completed at least one coaching call from the KSQL during the specified time period. Data is limited in this manner to maximize comparability with rates of state-wide smoking prevalence available from CDC Behavioral Risk Factor Surveillance System (BFRSS) Data. Due to a change in BRFSS methodology in 2011, 2010 data is not directly comparable to succeeding years. In addition, 2012 data is not yet available. The most current smoking prevalence rate (2011) was utilized to calculate reach rates. The number of adults in Kansas was calculated by multiplying yearly census estimates by the percentage of residents aged 18 and older.
- ²⁵ Behavioral Risk Factor Surveillance System. *Tobacco Use Prevalence and Trends Data*. Available at: http://apps.nccd.cdc.gov/brfss/display.asp?state=SC&cat=TU&yr=2011&qkey=8161&grp=0&SUBMIT4=Go
- ²⁶ United States Census (2012). Available at: http://www.census.gov/popest/data/state/totals/2012/index.html
- ²⁷ NAQC. (2009). Measuring Reach of Quitline Programs. Quality Improvement Initiative (S. Cummins, PhD). Phoenix, AZ.
- ²⁸ NAQC. *Mission and Goals*. Available at: http://www.naguitline.org/?page=MissionGoals
- ²⁹ Centers for Disease Control and Prevention. (2007). Best Practices for Comprehensive Tobacco Control Programs—2007. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Available at: www.cdc.gov/tobacco/stateandcommunity/best practices/pdfs/2007/BestPractices Complete.pdf
- ³⁰ Centers for Disease Control and Prevention, (2010), State Medicaid coverage for tobacco-dependence treatments United States, 2009. MMWR: Morbidity and Mortality Weekly Report, 59(41), 1340-1343.
- ³¹ American Lung Association. Cutting Tobacco's Rural Roots: Tobacco Use in Rural Communities. Available at: http://www.lung.org/assets/documents/publications/lung-disease-data/cutting-tobaccos-rural-roots.pdf
- ³² Centers for Disease Control (2007). Best practices for comprehensive tobacco control programs 2007. Atlanta, GA, Centers for Disease Control and Prevention.
- 33 NAQC (2009). Measuring Quit Rates. Quality Improvement Initiative (L. An, MD, A. Betzner, PhD, M.L. Luxenberg, PhD, J. Rainey, BA, T. Capesius, MPH, & E. Subialka, BA). Phoenix, AZ.
- ³⁴ Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC): Adult Smoking-Attributable Expenditures for Kansas. Available at: https://apps.nccd.cdc.gov/sammec/show_same_data.asp.
- ³⁵ Heffler, S., et al. (2002). Health spending projections for 2001-2011: the latest outlook. Health Affairs, (21);2.
- ³⁶ Stunk, B. C., Gabel, J. R., & Ginsburg, P. B. (2002). Tracking Health Care Costs: hospital spending spurs double-digit increase in 2001. Health System Change; data bulletin no. 22. Available at: http://www.hschange.org/CONTENT/472/
- ³⁷ Bureau of Labor Statistics. (2010) Average annual increase in productivity in US from 1997-2006. USDL-10-1661. Available at: http://www.bls.gov/news.release/archives/prod2 12012010.pdf
- 38 Bunn, W. B., Stave, G. M., Downs, K. E., Alvir, J. M., & Dirani, R. (2006). Effect of smoking status on productivity loss. Journal of Occupational and Environmental Medicine, 48, 1099-1108.
- ³⁹ Musich, S., Napier, D., & Edington, D. W. (2001). The association of health risks with workers' compensation costs. *Journal of* Occupational and Environmental Medicine, 43, 534-541.
- ⁴⁰ State anti-tobacco media campaign expenditures provided by the Kansas Department of Health and Environmental Control, Division of Tobacco Prevention and Control.